TV RACK

BACKGROUND OF THE INVENTION

1. Field of the Invention:

The present invention relates to furniture and, more specifically, to a TV rack for holding TV, CD player, stereo system, etc.

2. Description of the Related Art:

Regular TV rack for holding TV, CD player, stereo system, etc. may be made of metal or wood. A wooden TV rack wears quickly with use, and tends to deform due to high humility. However, a wooden TV rack gives a warm, comfortable, friendly touch. In market, wooden TV racks are more popularly accepted by consumers. A metal TV rack is durable in use and does not deform due to high humility or hot temperature. However, a metal TV rack gives a cold touch, difficult to attract consumers to buy.

SUMMARY OF THE INVENTION

The present invention has been accomplished under the circumstances in view. It is the main object of the present invention to provide a TV rack, which uses metal support members to support wooden plate members. It is another object of the present invention to provide a TV rack, which has the advantage of soft and friendly touch of wooden material and the advantages of weather proof feature and high durability of metal material. It is still another

object of the present invention to provide a TV rack, which is easy to assemble.

To achieve these and other objects of the present invention, the TV rack comprises plurality of metal supporting frame bars arranged in parallel, the metal supporting frame bars each comprising an elongated vertical frame portion, an elongated top horizontal frame portion perpendicularly extended from a top end of the elongated vertical frame portion, and an elongated bottom horizontal frame portion perpendicularly extended from a bottom end of the elongated vertical frame portion and disposed in parallel to the elongated top horizontal frame portion; a wooden back panel fastened to the elongated vertical frame portions of the metal supporting frame bars and supported between the elongated top horizontal frame portions and elongated bottom horizontal frame portions of the metal supporting frame bars; a wooden bottom panel fixedly fastened to the elongated bottom horizontal frame portions of the supporting frame bars; a wooden front open frame fixedly fastened to the free ends of the elongated top horizontal frame portions and elongated bottom horizontal frame portions of the supporting frame bars and disposed in parallel to the wooden back panel, the wooden front open frame having a plurality of locating grooves; a plurality of partition board holders fixedly fastened to the back panel and horizontally aligned in a line; a wooden top

panel fixedly fastened to the elongated top horizontal frame portions of the metal supporting frame bars and maintained in parallel to the wooden bottom panel; and a plurality of partition boards respectively engaged into the locating grooves of the wooden front open frame and the partition board holders and spaced between the wooden top panel and the wooden bottom panel.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A is an exploded view of the supporting frame bars and the back panel according to the present invention.

FIG. 1B is an assembly view of FIG. 1A.

FIG. 2 is an exploded view of the bottom panel and the assembly of the supporting frame bars and back panel according to the present invention.

FIG. 3A is an exploded view of the front frame and the assembly of the supporting frame bars, back panel and bottom panel according to the present invention.

FIG. 3B is an enlarged view of a part of FIG. 3A.

FIG. 4A is an exploded view of the partition board holders and the assembly of the supporting frame bars, bottom panel, front frame and back panel according to the present invention.

FIG. 4B is an enlarged view of a part of FIG. 4A, showing the structure of the partition board holder.

FIG. 5 is an exploded view of the top panel and the assembly of the supporting frame bars, bottom panel, front frame, back panel and partition board holders according to the present invention.

FIG. 6 is an exploded view of the foot members and the assembly of the supporting frame bars, bottom panel, front frame, back panel, partition board holders and top panel according to the present invention.

FIG. 7 is a schematic drawing showing the insertion of the partition boards into the framework of the supporting frame bars, back panel, bottom panel, front frame and top panel.

FIG. 8 is an elevational view showing the TV rack assembled according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. 1~8, a TV rack in accordance with the present invention is shown comprised of three supporting frame bars **10**, a back panel **20**, a bottom panel **30**, a front frame **40**, a plurality of partition board holders **50**, a top panel **60**, a plurality of foot members **70**, and a plurality of partition boards **80**. The supporting frame bars **10** are made of metal. The back panel **20**, the bottom panel **30**, the front frame **40**, and the top panel **60** are respectively made of wooden material.

Referring to FIG. 1A, the supporting frame bars **10** are

arranged in parallel, each comprising an elongated vertical frame portion **11**, an elongated top horizontal frame portion **12** and an elongated bottom horizontal frame portion **13** respectively perpendicularly extended from the top and bottom ends of the elongated vertical frame portion **11** in same direction, and a plurality of mounting lugs **14** respectively perpendicularly extended from the free ends of the elongated top and bottom horizontal frame portion **12** and **13**.

Referring to FIG. 1B and FIG. 1A again, the back panel **20** has a plurality of top notches **21** respectively located on the middle and two ends of the top side, two vertical end flanges **22** respectively perpendicularly extended from the two opposite lateral sides, and a plurality of elongated wire slots **25** for the passing of cables and power cords of electric appliances. The back panel **20** is mounted in between the elongated top horizontal frame portions **12** and elongated bottom horizontal frame portions **13** of the supporting frame bars **10** and closely attached to the elongated vertical frame portions **11** of the supporting frame bars **10**, keeping the top notches **21** in engagement with the elongated top horizontal frame portion **12** of the supporting frame bars **10** and the vertical end flanges **22** respectively fixedly fastened to the elongated vertical frame portions **11** of the two supporting frame bars **10** at two sides by fastening elements, for example, screws **23**.

Referring to FIG. 2, the bottom panel **30** is fixedly fastened to the elongated bottom horizontal frame portions **13** of the supporting frame bars **10** by fastening elements, for example, screws **31**, having two end flanges **32** respectively hooked on the elongated bottom horizontal frame portions **13** of the two supporting frame bars **10** at two sides.

Referring to FIGS. 3A and 3B, the front frame **40** is an open frame fixedly fastened to the mounting lugs **14** of the supporting frame bars **10** by fastening elements, for example, screws **41**, and kept in parallel to the back panel **20**, having a plurality of locating grooves **42**.

Referring to FIGS. 4A and 4B, the partition board holders **50** are U-shaped clamps fixedly fastened to the back panel **20** by fastening elements, for example, screws **51**, and horizontally aligned in a line.

Referring to FIG. 5, the top panel **60** is fixedly fastened to the elongated top horizontal frame portions **12** of the supporting frame bars **10** by fastening elements, for example, screws **61**, and maintained in parallel to the bottom panel **30**, having two end flanges **622** respectively hooked on the elongated top horizontal frame portions **12** of the two supporting frame bars **10** at two sides.

Referring to FIG. 6, the foot members **70** are anti-skid foot members respectively located on the elongated bottom horizontal

frame portions **13** of the supporting frame bars **10** at the bottom side.

Referring to FIG. 7, the partition boards **80** are respectively mounted in the framework formed of the supporting frame bars **10**, the back panel **20**, the bottom panel **30**, the front frame **40**, and the top panel **60**, having the respective front side respectively engaged into the partition board holders **50** and secured thereto by tightening up screws **52** and the respective two opposite lateral sides respectively engaged into the locating grooves **42** of the front frame **40**.

FIG. 8 illustrates the outer appearance of the TV rack when assembled.

As indicated above, the TV rack uses metal supporting frame bars to support wooden front frame and wooden top, bottom and back panels, i.e., the invention has the advantage of soft and friendly touch of wooden material and the advantages of weather proof feature and high durability of metal material. The metal supporting frame bars support the wooden front frame and the wooden top, bottom and back panels firmly in position. Further, the assembly procedure of the present invention is simple.

A prototype of TV rack has been constructed with the features of FIGS. 1~8. The TV rack functions smoothly to provide all of the features discussed earlier.

Although a particular embodiment of the invention has been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.